



Living Shorelines *in Hampton Roads, Virginia*

CHESAPEAKE BAY FOUNDATION

Living shorelines are areas along the edges of waterfront property that have been deliberately enhanced with oyster shells and marsh grasses to attract wildlife. Such areas soon teem with life -- oysters, crabs, fish, birds and other water and land animals and plants. Living shorelines also help stabilize shorelines and reduce erosion.

Any waterfront property owner in Hampton Roads can consider living shorelines. They're fun, they're easy to create, and they help improve water quality in streams, rivers and the Chesapeake Bay.

A major component of living shorelines is the placement of oyster shells adjacent to shorelines. The shells create valuable habitat for living oysters and other plants and animals in the underwater community. Specifically, the shells function as a place for juvenile oysters to settle and grow safely from predators, and serve as important hiding, feeding, and habitat places for hundreds of Bay critters.



The natural marsh line of a Living Shoreline at high tide.



Photo by Richard Serpe

A Living Shoreline of oyster shell placed on a Lynnhaven River creek at low tide.

Native oyster restoration is an ongoing effort in Hampton Roads waterways, and providing additional shell habitat is critical for success. The oyster shells in living shorelines also can naturally prevent shoreline erosion by helping reduce wave energy and soften the impact of tides and storms.

An additional feature of living shorelines includes planting marsh grasses to supplement existing marsh areas along the shoreline. These native plants provide wildlife habitat and food, help stabilize the shoreline, absorb flood water and storm surges, and reduce nutrient pollution running off the land.

HOW CBF'S VIRGINIA LIVING SHORELINE PROGRAM WORKS



A suitable site is chosen for the living shoreline. Suitability is based on shoreline bottom conditions and proximity to existing oyster reefs. The ideal location is a hard or sandy bottom so the oyster shell doesn't sink. A joint agency permit must be obtained before any shell is placed; CBF will assist property owners in the permit process.

CBF transports oyster shells to the site in the early summer months, when the oysters in Virginia waters are entering their reproductive season. CBF pays for the cost of the shell and its transport through grants.



A typical living shoreline requires 80 bushels of oyster shell. This creates a reef structure about eighteen inches high, three feet wide, and fifty feet long.

Volunteers and CBF staff place the shells adjacent to the shoreline.



Photo by Richard Serpe

CBF will come back annually to monitor the success of the project and determine the number of young oysters, or spat, newly settled on the living shoreline. Marsh grass plants would then be planted by CBF staff and volunteers, if appropriate for the site.

Thanks to Bay Environmental Inc. and Lynnhaven River 2007 for its partnership with the Living Shorelines program!

For more information, contact CBF's Hampton Roads office at (757) 622-1964 or hamptonroads@cbf.org



CHESAPEAKE BAY FOUNDATION
Save the Bay

The Chesapeake Bay Foundation is a nonprofit organization dedicated solely to saving the Chesapeake Bay. Its motto, save the Bay, defines the organization's mission and commitment. With headquarters in Annapolis, Md., state offices in Maryland, Virginia and Pennsylvania, and a varied group of educational centers and programs, CBF works throughout the Chesapeake's 64,000-square-mile watershed. Founded in 1967, CBF is a 501(c)(3) not-for-profit organization supported by more than 140,000 active members and a staff of 150 full-time employees.

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